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**LABORATORY**  
OF THE  
**INLAND REVENUE DEPARTMENT**  
OTTAWA, CANADA

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**BULLETIN No. 393**

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**SODIUM PHOSPHATE**

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#### NOTES AND COMMENTS.

Under this heading, as occasion arises, the Bulletins issued by this Department will contain, as an appendix, such comment as may seem necessary or advisable upon matters relating to the work of the Department in connection with the administration of the Adulteration Act, the Fertilizers Act, the Feeding Stuffs Act or the Proprietary Medicines Act.

It frequently happens that correspondents ask information regarding the above Acts, of such nature that the matter in question possesses general interest, and comment upon it would prove acceptable and useful to others than the immediate questioner. In such cases the reply may find a place in these columns. For convenience of reference these notes will be numbered in series.

A. MCGILL,

*Chief Analyst.*

LABORATORY  
OF THE  
INLAND REVENUE DEPARTMENT  
OTTAWA, CANADA

BULLETIN No. 393

SODIUM PHOSPHATE

OTTAWA, February 27, 1918.

J. U. VINCENT, Esq., K.C., B.A., L.Ph.,  
Deputy Minister of Inland Revenue.

SIR.—I beg to hand you a report upon Sodium Phosphate, and Effervescent Sodium Phosphate.

*Sodium Phosphate*, otherwise known as *Sodii Phosphas* or *Di-sodium Hydrogen Phosphate*, or *Phosphate of Soda*, is one of the most widely used drugs of the pharmacopæia, and is thus described in the British Pharmacopœia, Edition 1914.

**Characters and Tests.** Transparent, colourless, rhombic prisms, efflorescent. Taste saline. Soluble in 7 parts of water, the solution being slightly alkaline to litmus. Yields the reactions characteristic of sodium and of phosphates. Five grammes dissolved in 50 millilitres of water, and neutralization not less than 13.9 millilitres of N/1 solution of sulphuric acid, 1/1000 molar of methyl orange being used as indicator. Yields no characteristic reaction with potassium, ammonium, carbonates, or chlorides, and not more than the slightest reaction for sulphates. Lead limit 5 parts per million. Arsenic limit 5 parts per million.

In the present report, this article is represented by 144 samples.

Non-effloresced crystals of sodium phosphate contain 60.33 per cent of water, and 19.83 per cent of phosphoric acid (stated as phosphoric anhydride,  $P_2O_5$ ).

The salt is highly efflorescent (i.e. loses water of crystallization in contact with air) and in consequence of this fact, its content in water is decreased and its content of phosphoric acid is proportionally augmented on prolonged keeping, unless proper precautions are taken. Thus, the loss of 5 per cent of water would cause the phosphoric acid content to be raised to 20.5 per cent nearly; while loss of 10 per cent water would raise the phosphoric content to 21.1 per cent. By artificial drying to loss of 50 per cent of its water of crystallization, the phosphoric acid content is raised to 28.4 per cent, and it is quite apparent that many of the samples herein reported have been dessicated so as to cause the loss of even more than 50 per cent of normal water of crystallization.

In the manufacture of effervescent sodium phosphate it is necessary to dry the sodium phosphate; and the pharmacopæia prescribes drying to the loss of about 60 per cent of the weight of the salt. This treatment renders it practically anhydrous; and its phosphoric acid content would then be raised to 50 per cent by weight.

By continued exposure to the air, at ordinary temperatures, crystallized sodium phosphate is said to lose five out of its normal twelve molecules of water of crystallization. This would result in a salt containing 26.5 per cent of phosphoric acid. In all samples showing a higher percentage than 26.5, it is probable that these have been intentionally subjected to dessication, or have been for a long time kept in an abnormally dry atmosphere.

The result of dessication is to make the sodium phosphate content more than 100 per cent when calculated from the phosphoric acid found. The number thus obtained has however, a practical value; and should be known to the physician, if regard is to be had to the quantity prescribed. Thus, if a prescription calling for 100 parts of sodium phosphate is filled by a partially dried salt containing 26.5 per cent of phosphoric acid, the patient receives about one-third more of the drug than the physician directed. It will be seen, from the table, that a large number of these samples are so abnormal, that a given weight of them corresponds to much more than the same weight of sodium phosphate; in a few cases to nearly double that weight.

Sodium phosphate is prepared by the interaction of acid calcium phosphate with sodium carbonate. The acid calcium phosphate is itself prepared by treating a neutral calcium phosphate with sulphuric acid. It is well known that much of the sulphuric acid of commerce contains arsenic, derived from the raw material (pyrites) employed in its manufacture. In consequence of this fact, arsenic is frequently introduced into acid calcium phosphate, and thence into the sodium phosphate, prepared from it.

The occasional presence of notable amounts of arsenic in sodium phosphate was pointed out in 1909 (see bull. 181). Six samples of the drug were found to contain from 5 to 10 parts of arsenic per million.

The Pharmacopeia fixes the limit for arsenic at 5 parts per million, and this limit is legalized for Canada by Order in Council of October, 1912, (G. 1048). A recent report to the Local Government Board of Great Britain, by Dr. MacFadden, (1916-17) includes certain samples (about 50 in number) of acid calcium phosphate in which the arsenic was excessive, reaching as much as 400 parts per million. In one sample 643 parts per million were found. It is easily to be understood how arsenic, in considerable amount, may pass over into sodium phosphate manufactured from an acid calcium phosphate of such character.

Of 144 samples of sodium phosphate herein reported (Table I), 64 samples are found to contain no arsenic, or only negligible traces. Sixty-eight samples contain amounts not exceeding 5 parts per million, while 12 samples contain above 5 parts per million, the highest amount found being 25 parts.

*Effervescent Sodium Phosphate* (Sodii Phosphas Effervescentis) is a mixture of sodium phosphate with sodium bi-carbonate and citric and tartaric acids. It is, in effect, a convenient mode of administering sodium phosphate; and contains about one-third of its weight of this salt. The usual dose is about double that for sodium phosphate.

One hundred and sixty-nine (169) samples of this article are reported in Table II. So far as arsenic is concerned, they show as follows:—

	Samples.
No arsenic or traces only . . . . .	74
Less than 5 parts per million . . . . .	94
More than 5 parts per million . . . . .	1
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	169

It is evident, however, that these samples are chiefly made from sodium phosphate containing more or less arsenic, and the explanation of a better showing is the fact that only about one-third of the weight of the article consists of sodium phosphate.

A considerable deviation from the pharmacopeal formula is observed in many of these samples; and most of them contain decidedly more sodium phosphate than the formula demands. Two samples (7357 and 5022) are apparently merely sodium phosphate supplied by mistake. Only one sample contains arsenic in sufficient amount to call for comment.

Although none of the samples herein reported can be regarded as positively dangerous, in regard to arsenical content, it is sufficiently apparent that manufacturing chemists must test all samples of sodium phosphate for arsenic, and reject such as show more than the legal limit of 5 parts per million, if they would meet the requirements of the British Pharmacopoeia. The United States Pharmacopoeia fixes the limit for arsenic at 10 parts per million; and the Adulteration Act (Section 7b), recognizes this Pharmacopoeia. When, however, any other standard than that set by the British Pharmacopoeia is in question, we expect such authority to be quoted. Failing this, the standard of the British Pharmacopoeia governs.

I beg to recommend publication of this report as Bulletin No. 393.

I have the honour to be, Sir,

Your obedient servant,

A. MCGILL,

*Chief Analyst.*

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BULLETIN No. 393—PHOSPHATE OF SODA, PLAIN—TABLE I.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cust.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report (Is not an expression of opinion).	Results of Analysis		Remarks and Opinion of the Chief Analyst
							Quantity.	Centre.	
1917.	July 25	7631	G. A. Burbridge, Halifax	1 lb...	40 Nat. Drug and Chem. Co., Halifax.	Lyman's, Ltd. Montreal.	29.4	None	102.8 7631
"	25	"	C. A. Barnstead, Halifax	1 "	20 Howard's Mfg. Co., Ltd., England.	Lyman's, Ltd. Montreal.	29.5	"	103.3 7632
"	25	"	Jas. D. Walsh, Halifax	1 "	35 Thomson Chem. Co., Baltimore, Md.	Lyman's, Ltd. Montreal.	23.7	"	119.4 7633
"	26	"	P. H. Holdsworth, Digby, N.S.	2 "	75 E. R. Squibb, Brooklyn, U.S.A.	Lyman's, Ltd. Montreal.	26.4	"	123.1 7634
Aug.	8	"	C. A. Ryan, Windsor, N.S.	25 Nat. Drug and Chem. Co., Halifax.	"	Lyman's, Ltd. Montreal.	29.3	"	102.3 7635
"	10	"	Kinley's, Ltd., Bridgeport, N.S.	40 "	"	Lyman's, Ltd. Montreal.	29.9	"	105.3 7636
"	22	"	Carew & Fraser, New Glasgow, N.S.	45 N. D. and Ch. Co.	"	Lyman's, Ltd. Montreal.	29.5	"	103.3 5876
"	7	"	E. S. Mackenzie, New Glasgow, N.S.	45 Mallinckrodt Chem. Works, New York.	"	Lyman's, Ltd. Montreal.	22.1	"	111.4 5876
"	8	"	T. H. Gochrane, New Glasgow, N.S.	50 "	"	Lyman's, Ltd. Montreal.	25.0	0.5	125.8 58770
"	9	"	A. C. Bell, New Glasgow, N.S.	35 Lyman's, Ltd. Montreal.	"	Lyman's, Ltd. Montreal.	23.6	2.0	118.9 58771
"	9	"	D. McNeil, Stellarton, N.S.	35 Nat. Drug and Chem. Co. of Canada.	"	Lyman's, Ltd. Montreal.	23.2	None	116.9 58772

DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR, W. A. PETIPAS, TEMPORARY INSPECTOR.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cust.	Name and Address of Manufacturer or Furnisher.	Inspector's Report (Is not an expression of opinion).	Results of Analysis		Remarks and Opinion of the Chief Analyst
							Quantity.	Centre.	
1917.	July 25	7631	G. A. Burbridge, Halifax	1 lb...	40 Nat. Drug and Chem. Co., Halifax.	Lyman's, Ltd. Montreal.	29.4	None	102.8 7631
"	25	"	C. A. Barnstead, Halifax	1 "	20 Howard's Mfg. Co., Ltd., England.	Lyman's, Ltd. Montreal.	29.5	"	103.3 7632
"	25	"	Jas. D. Walsh, Halifax	1 "	35 Thomson Chem. Co., Baltimore, Md.	Lyman's, Ltd. Montreal.	23.7	"	119.4 7633
"	26	"	P. H. Holdsworth, Digby, N.S.	2 "	75 E. R. Squibb, Brooklyn, U.S.A.	Lyman's, Ltd. Montreal.	26.4	"	123.1 7634
Aug.	8	"	C. A. Ryan, Windsor, N.S.	25 Nat. Drug and Chem. Co., Halifax.	"	Lyman's, Ltd. Montreal.	29.3	"	102.3 7635
"	10	"	Kinley's, Ltd., Bridgeport, N.S.	40 "	"	Lyman's, Ltd. Montreal.	29.9	"	105.3 7636
"	22	"	Carew & Fraser, New Glasgow, N.S.	45 N. D. and Ch. Co.	"	Lyman's, Ltd. Montreal.	29.5	"	103.3 5876
"	7	"	E. S. Mackenzie, New Glasgow, N.S.	45 Mallinckrodt Chem. Works, New York.	"	Lyman's, Ltd. Montreal.	22.1	"	111.4 5876
"	8	"	T. H. Gochrane, New Glasgow, N.S.	50 "	"	Lyman's, Ltd. Montreal.	25.0	0.5	125.8 58770
"	9	"	A. C. Bell, New Glasgow, N.S.	35 Lyman's, Ltd. Montreal.	"	Lyman's, Ltd. Montreal.	23.6	2.0	118.9 58771
"	9	"	D. McNeil, Stellarton, N.S.	35 Nat. Drug and Chem. Co. of Canada.	"	Lyman's, Ltd. Montreal.	23.2	None	116.9 58772

"	9	"	53772D	N.S. N.S.	N.S. N.S.	35	real Drug and Chem. Co. of Canada.	"	23	2	None.	116	9	53772
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DISTRICT OF CAPE BRETON—F. F. MACKEEN, INSPECTOR.

Aug. 14	Phosphate of Soda.	63880	C. H. Harshman, Sydney, 1 lb.	50	Lyman's Ltd., Montreal, Nat. Drug Co., Canada	"	"	"	35	1	10 0	131 5	63880	Armenic in excess.
" 23	"	63883	J. J. Turnbull, Sydney, C.B.	50	"	"	"	"	23	9	None.	129 5	63883	

DISTRICT OF NEW BRUNSWICK—JOHN C. FERGUSON, INSPECTOR.

June 26	Phosphate of Soda.	78061	Nat. Drug and Chem. Co., 1 lb.	40	Mallinckrodt, Philadelphia.	"	"	"	26	3	None.	122 6	78061	
July 3	"	78062	E. Clinton Brown, St. John, N.B.	35	Mallinckrodt Chem. Works, St. Louis.	"	"	"	23	1	"	116 4	78062	
" 4	"	78063	A. Chapman, Smith & Co., St. John, N.B.	35	Nat. Drug and Chem. Co., Ltd., Canada.	"	"	"	25	8	"	130 6	78063	
" 4	"	78064	Moore's Drug Store, St. John, N.B.	75	Lyman's, Ltd., Montreal.	"	"	"	25	7	"	125 5	78064	Armenic in excess.
" 9	"	78065	F. W. Munro, St. John, N.B.	25	Mallinckrodt Chem. Works, Montreal.	"	"	"	25	7	"	0 5 129 5	78065	
" 26	"	78066	Johnston & Johnson, St. John, N.B.	35	Powers, Weightman & Rossouw, Philadelphia.	"	"	"	26	9	"	135 6	78066	
Aug. 8	"	78067	Stevens Bros., Woodstock, 1 lb.	40	E. G. West & Co., Toronto.	"	"	"	21	1	"	105 3	78067	Armenic in excess.
" 24	"	78068	C. P. Hickey, Chatham, 1 lb.	50	Nat. Drug and Chem. Co., Ltd.	"	"	"	29	9	None.	145 3	78068	
" 23	"	78069	Stevens Pharmacy, Moncton, N.B.	35	Mallinckrodt Chem. Works, St. Louis.	"	"	"	23	6	None.	118 9	78069	
" 25	"	78070	Dickson & Troy, New Castle, N.B.	30	Lyman's, Ltd., Montreal.	"	"	"	22	9	"	115 4	78070	

DISTRICT OF QUEBEC CITY—F. X. W. E. BELAND, INSPECTOR.

June 21	Phosphate of Soda.	71226	A. E. Francoeur, 294 St. Jean, Quebec.	60	Lyman's Montreal.	"	"	"	22	7	1 0	119 4	71226	
" 21	"	71227	Ete. Jolicoeur, 138 St. Jean, Quebec.	"	"	"	"	"	22	3	None.	112 4	71227	
" 21	"	71229	J. C. Dale, 17 St. Jean, Quebec.	40	"	"	"	"	20	5	0 5	123 6	71229	
" 21	"	71230	J. C. Liver, St. Jean 1 and Conillard, Quebec.	65	Mallinckrodt.	"	"	"	20	3	1 0	142 6	71230	
" 21	"	71232	Laforge & Co., 4 de la 1 Fabrique, Quebec.	25	Lyman's Ltd.	"	"	"	21	2	None.	105 8	71232	

BULLETIN No. 393—PHOSPHATE OF SODA PLAIN—TABLE I.

Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.	Remarks and Opinion of the Chief Analyst.	No. of Sample.
Date of Collection.								
1917.	June 21	Phosphate of Soda.	71234	Dr. Ed. Morin, Cote de 1 lb., La Montagne, Quebec.	15 Unknown . . . . .	26 1 None.	131 5	71234
"	22	"	71237	W. B. Rogers, 41 Fairlawn, Quebec.	50 Nat. Drug Co. . . . .	21 9 "	110 4	71237
"	22	"	71242	V. Giron, 16 St. Pierre, Quebec.	80 " . . . . .	22 0 "	110 8	71242
"	22	"	71244	J. Laroche, 303 St. Paul, Quebec.	50 " . . . . .	26 3 "	132 6	71244

## DISTRICT OF QUEBEC CITY—Concluded.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher.	Inspector's Report.	Results of Analysis.	Remarks and Opinion of the Chief Analyst.	No. of Sample.
1917.									
June 21	Phosphate of Soda.	7354	A. E. Michon, Mont. 1 lb.	75 Na-Dru-Co., Montreal	.....	.....	26 4 None.	133 1	7354
"	"	7356	Dr. J. L. Gagnon, Mont. 1 "	7	.....	.....	25 6 2 0	129 0	7356
"	"	7358	Dme. Adrienne Talbot, 1 "	60 Mallinckrodt Chem. Works, Montreal.	.....	.....	28 9 Trace.	145 6	7358
July 4	"	5021	E. O. Cloutier, Fraserville, P.Q.	60 Unknown . . . . .	Unknown	.....	28 4 "	143 1	5021

## DISTRICT OF QUEBEC PROVINCE—T. GENDREAU, A. PELLETIER, TEMPORARY INSPECTORS.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher.	Inspector's Report.	Results of Analysis.	Remarks and Opinion of the Chief Analyst.	No. of Sample.
1917.									
June 16	Phosphate of Soda.	7354	A. E. Michon, Mont. 1 lb.	75 Na-Dru-Co., Montreal	.....	.....	26 4 None.	133 1	7354
"	"	7356	Dr. J. L. Gagnon, Mont. 1 "	7	.....	.....	J. E. Livernois, Quebec.	25 6 2 0	7356
"	"	7358	Dme. Adrienne Talbot, 1 "	60 Mallinckrodt Chem. Works, Montreal.	.....	.....	28 9 Trace.	145 6	7358
July 4	"	5021	E. O. Cloutier, Fraserville, P.Q.	60 Unknown . . . . .	Unknown	.....	28 4 "	143 1	5021

" 10	"	"	"	"	"	"	"	"
July 4	"	"	"	"	"	"	"	"
36262-2	5021	Montagny, Laval, P.Q.						

DISTRICT OF THREE RIVERS—DR. V. P. LAVALLÉE, INSPECTOR.

June 12	Phosphate of Soda.	7447	J. T. Gaudet, Joliette.	1 lb..	150	Nat. Drug & Chem. Co., Montreal.	.....	.....	25.4	None.	128.6	7447
" 12	"	7448	Pharmacie Geoffrey, Joliette.	1 lb..	30	Lyman's, Ltd., Montreal.	.....	.....	33.8	15.0	170.4	7448
" 13	"	7456	Dr. J. A. Sarrazin, St. Gabriel de Brandon.	1 lb..	40	Merck Co., New York.	.....	.....	26.4	1.0	133.1	7456
" 20	"	7457	Dr. J. A. Sarrazin, St. Gabriel de Brandon.	1 lb..	150	John W. Yeth Bro., Philadelphia.	.....	.....	26.2	None.	132.0	7457
			J. A. Peltier, Three Rivers	3 lbs.	150	"	"	.....	27.2	"	137.1	7483

DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR.

Aug. 13	Phosphate of Soda.	56483	A. F. Larose, 66 St. Law.	1 lb..	50	Merck's	.....	.....	23.4	None.	117.9	58483
" 13	"	56864	Fr. Ron, Montreal.	1 lb..	35	Mallinckrodt's Chem. Works.	.....	.....	22.9	1.0	115.4	58484
" 13	"	56485	Belanger, 1364 St. Catherine St. E., Montreal.	1 lb..	25	Nat. Drug & Chem. Co., Ltd.	.....	.....	23.1	None.	116.4	58485
" 14	"	56496	Pequin Wilbrod, 640 Mt. Royal Ave. E., Montreal.	1 lb..	45	Lymans Ltd.	.....	.....	24.1	4.0	121.5	58486
" 14	"	56487	J. H. Goulet, Bleury St., Montreal.	1 lb..	50	Howard & Sons	.....	.....	22.3	Trace.	112.4	58487

DISTRICT OF VALLEYFIELD—J. J. COSTIGAN, ACTING INSPECTOR.

June 20	Phosphate of Soda.	74321	F. C. Saunders, Bedford.	1 lb..	35	Lymans Ltd.	.....	.....	28.7	Trace.	144.6	74321
" 21	"	74322	P. Q. Arm. Bourgeois, St. Johns.	1 lb..	50	Merck's	.....	.....	26.8	None.	136.1	74322
" 21	"	74323	P. P. Sabourin, St. Johns.	1 lb..	35	Nat. Drug & Chem. Co. Ltd.	.....	.....	24.4	"	123.0	74323
" 26	"	74324	John McLeister, Alexandria.	1 lb..	50	Lymans Ltd.	.....	.....	28.7	"	144.6	74324
" 28	"	74325	Geo. W. Johnston, Cowansville.	1 lb..	35	N. D. & Chem. Co. Ltd.	.....	.....	23.6	Trace.	118.4	74325
July 11	"	74326	S. E. McGibbon, Hawkesbury.	1 lb..	53	Merck's	.....	.....	23.4	3.0	117.0	74326

BULLETIN No. 393—PHOSPHATE OF SODA, PLAIN—TABLE I.

Nature of Sample.	Date of Collection.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer (or Furnisher, as given by the Vendor.	Manufacturer.	Furnisher.	Results of Analysis.		No. of Sample.
							Inspected Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.	
1917.	July 11	Phosphate of Soda.	7437	W. A. McRae, Hawkesbury.	50	Lyman's Ltd.	21	3% Trace.	107 3
"	13	"	7438	James Fortune, Huntingdon.	25	Nat. Drug & Chem. Co., Ltd.	30 2	1/2 2	7438
"	16	"	7439	Dr. J. A. Haot, Longueuil.	30	"	39 0	1 0	196 6
"	24	"	7439	L. A. Giron, St. Laurent.	35	Mallinckrodt Chem. Works, Ltd.	28 6	1 0 1/4 1	7439

## DISTRICT OF VALLEYFIELD—(continued).

Date of Collection.	Nature of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer.	Manufacturer.	Furnisher.	Results of Analysis.		No. of Sample.
							Inspected Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.	
1917.	July 11	Phosphate of Soda.	7439	Estate W. H. Roger, 321 Ib.	35	Nat. Drug & Chem. Co., Ltd.	20 7	None	104 3
"	13	"	7439	Rideau St., Ottawa.	30	Lyman's Ltd., Montreal.	22 0	"	110 9
"	16	"	7439	V. F. Kincaid, Brockville.	35	Mallinckrodt Chem. Works, Ltd., Montreal.	22 5	2 0	113 4
"	24	"	7439	F. R. Curry, Brockville.	1 "	"	"	"	77546

## DISTRICT OF OTTAWA—J. A. RICKY, INSPECTOR.

Date of Collection.	Nature of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer.	Manufacturer.	Furnisher.	Results of Analysis.		No. of Sample.
							Inspected Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.	
June 26	Phosphate of Soda.	77523	Estate W. H. Roger, 321 Ib.	35	Nat. Drug & Chem. Co., Ltd.	Ottawa.	Pure,.....	77523	
July 7	"	77545	Rideau St., Ottawa.	30	Lyman's Ltd., Montreal.	"	Free from arsenic.	"	110 9
"	7	"	77546	V. F. Curry, Brockville.	35	Mallinckrodt Chem. Works, Ltd., Montreal.	Pure U.S.P.	2 0	113 4

DISTRICT OF KINGSTON—J. A. HOGAN, INSPECTOR.

June 13	Phosphate of Soda	7830	Estate of C. S. Pross, 1 lb.	25							
262	"	7830	T. H. Sargent, Kingston	1 "	35						
21	"	7832	A. P. Chown, "	1 "	30	Mallinckrodt, Montreal					
14	"	7832	Mahood Drug Co., "	1 "	30	N. C. Polson & Co., Kingston, Chem. Co.					
14	"	7832	J. P. Doyle, Belleville	1 "	25	Powers, Weightman & Co., Rosengarten, Lyman, Montreal					
18	"	7834	J. P. Doyle, Belleville	1 "	25	Powers, Weightman & Co., Rosengarten, Lyman, Montreal					
18	"	7835	D. M. Waters, "	1 "	30	Powers, Weightman & Co., Rosengarten, Lyman, Montreal					
19	"	7836	C. B. Allison, Picton	1 "	40	"					
19	"	7837	E. D. Case, Picton	1 "	35	Powers, Weightman & Co., Rosengarten, Lyman, Montreal					
19	"	7838	J. H. Dickey, Peterboro	1 "	30	Powers, Weightman & Co., Rosengarten, Lyman, Montreal					
19	"	7839	T. Geo. Watson, Port Hope	1 "	25	Nat. Drug Co., Toronto					

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

June 21	Phosphate of Soda	7788	F. A. Jacobs, 361 Broadview Ave., Toronto	1 lb.	25	Thomson Chem. Co., Baltimore, Md.	Pure	29	8	1·0	150·2
"	"	7789	F. C. Fiolting, 347 Danforth Ave., Toronto	1 "	30	Powers, Weightman & Co., Philadelphia	Pure	29	4	11·0	148·2
"	"	7789	Noiris Drug Store, 3001 Bloor St. W., Toronto	1 "	25	Mallinckrodt, Chem. Works, Montreal	Pure	25	6	Trace.	7789
"	"	7789	The Ferragh Drug Co., 1 St. E., Toronto	1 "	25	E. G. West & Co., Toronto	Pure B. P.	28	0	134·0	7789
"	"	7789	H. H. Webb, 714 Queen St. E., Toronto	1 "	26	The Lyman Bros. Co., Ltd., Toronto	Pure	28	0	141·1	7789
"	"	7789	Owl Drug Store, 771 Queen St. E., Toronto	1 "	42	Nat. Drug & Chem. Co., Toronto	Pure	27	8	None	140·1
"	"	7789	F. J. Sanders, 822 Queen St. E., Toronto	1 "	26	Merck & Co., Montreal	Pure	23	0	"	120·4
"	"	7789	J. A. Green, 216 Queen St. E., Toronto	1 "	45	E. R. Squibb & Sons, New York	Lloyd Wool	30	0	1·0	161·2
"	"	7789	L. K. Liggett & Co., Ltd., 1 "	25	E. G. West & Co., Toronto	Pure	28	0	11·0	141·1	7789
"	"	7789	The T. Eaton Co., Ltd., 1 "	25	Howard & Sons, London, Eng.	B. P.	29	2	None	147·2	7789

BULLETIN No. 393—PHOSPHATE OF SODA, PLAIN—TABLE I.

DISTRICT OF HAMILTON—H. J. DAGER, ACTING INSPECTOR.

1917	July	3	Phosphate of Soda.	77934	F. F. Bogardus, Guelph	1 lb.	35	Thorsen Chem. Co., Baltimore.	.....	Pure. ....	23.2	None.	116.9	77934
		4	"	77935	A. B. Petrie, Guelph	1 lb.	25	.....	.....	.....	20.2	12.0	142.1	77935
		5	"	77936	A. G. Haemel, Waterloo	1 "	35	Mallinchrodt Chem. Works, St. Louis.	.....	Pure. ....	24.1	Trace.	121.5	77936
		9	"	77937	C. A. C. Cameron, Brantford	1 "	25	E. G. W. & Co., Toronto.	.....	" .....	21.7	9.0	109.4	77937
		9	"	77938	T. G. Bowler, Brantford	1 "	32	Merck & Co., New York.	.....	" .....	30.6	1.0	154.2	77938
		11	"	77940	A. W. Garner, St. Catharines.	1 "	25	Lyman Beebe & Co., Ltd., Toronto.	.....	" .....	20.1	None.	161.3	77940
		11	"	77941	Wm. Erskine, St. Catharines.	1 "	35	E. G. West & Co., Toronto.	.....	Pure B.P. ....	25.8	4.0	130.0	77941
		12	"	77943	E. B. Neally, 165 King St.	1 "	52	E. R. Squibb, New York.	.....	.....	24.5	1.0	123.5	77943
		12	"	77953	P. E. Hamilton, John and A. Roche, John and Main, Sts., Hamilton.	1 "	35	Nat. Drug & Chem. Co., Ltd., Hamilton.	.....	.....	26.2	2.0	132.0	77953
		13	"	77966	T. Sweet, 270 King St., W., Hamilton.	1 "	35	Power Weightman & Rosengarten, Phila- delphia.	.....	U. S. P. ....	28.0	5.0	141.1	77966

DISTRICT OF WINDSOR-JOHNS TALBOT, INSPECTOR.

June 12	Phosphate of Soda.	65211	W. S. Howey, Exeter.	1 lb.	35	Powers Weightman & Rosengarten, Philadelphia.	.....	.....	.....	24 3	5 0	122 5	65211
"	"	65224	J. E. Hovey, Clinton.	1 "	25	Mallinckrodt, New York.	.....	Pure .....	7 1 None.	136 1	65224		
"	13	"	"	"	35	Mallinckrodt, Montreal.	.....	" .....	26 1	2 0	131 5	65226	
"	13	"	W. S. R. Holmes, Clinton.	1 "	35	Mallinckrodt, Montreal.	.....	" .....	27 9	8 0	140 6	65234 Arsenic in eggs.	
"	14	"	J. A. Campbell, Goderich.	1 "	20	E. G. West & Co., Toronto.	.....	" .....	24 6	1 0	124 0	65235	
"	14	"	E. R. Wigle, Goderich.	1 "	35	Powers Weightman & Rosengarten, Philadelphia.	.....	.....	25 6	1 0	129 0	65238	
"	14	"	H. C. Dunlop, Goderich.	1 "	22	Nat. Drug Co.	.....	.....	26 5	1 0	134 0	65248	
"	15	"	Pepper's Drug Store, Woodstock, Ont.	1 "	35	Powers Weightman & Rosengarten, Philadelphia.	.....	.....	27 1 None.	136 6	65251		
"	18	"	Standard Drug Co., London.	1 "	25	Nat. Drug Co.	.....	Pure .....	26 9	1 0	135 6	65252	
"	18	"	H. J. Childs, London.	1 "	25	"	.....	.....	26 5	1 0	134 0	65256	
"	19	"	Cook's Red Drug Store, St. Thomas.	1 "	35	Mallinckrodt Chem. Works, St. Louis.	.....	Pure .....	.....	.....	.....	.....	

**DISTRICT OF NORTHERN ONTARIO—THOS. E. ARMSTRONG, INSPECTOR.**

**DISTRICT OF MANITOBA—J. A. COSGROVE, INSPECTOR**

BULLETIN No. 393—PHOSPHATE OF SODA, PLAIN—TABLE I.

Date of Collection.	Nature of Sample	No. of Sample	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer	Inspector's Report (Is not an expression of opinion).	Results of Analysis.			No. of Sample.
							Quantity.	Cent.	Parts per million Phosphate Acid.	
<b>DISTRICT OF MANITOBA—<i>Continued.</i></b>										
1917.	July 4	Phosphate of Soda.	73663 Central Drug Hall, Poiseau, 1 lb.	40	Nat. Drug Co., Winnipeg.	.....	.....	.....	22.0	3.0
"	30	"	73614 McPhee's Drug Store, Brandon.	75	Nat. Drug Co., Winnipeg.	.....	.....	.....	27.0	3.0
"	30	"	7366 Clements Drug Store, Brandon.	50	Powers Weightman, Philadelphia.	.....	.....	.....	25.0	4.0
"	31	"	73666 Hutchings Drug Store, 658 Tenth St., Brandon.	50	Nat. Drug Co., Winnipeg.	.....	.....	.....	25.5	3.0
Aug.	1	"	73667 Doc. A. Lawson, Carrberry 1 lb.	50	E. G. West & Co., Toronto.	.....	.....	.....	24.0	4.0
"	2	"	73668 Gordon Mitchell Co., 6761 Main St., Winnipeg.	50	C. E. Frost, Montreal.	.....	.....	.....	25.0	4.0

DISTRICT OF SASKATCHEWAN—L. H. HALL, INSPECTOR.

June 14	Phosphate of Soda.	7701	H. S. Hamilton, Moose Jaw.	1 lb.	50	Nat. Drug & Chem. Co., Montreal.	.....	.....	28.0	4.0	141.1	77041
" 22	"	7702	Kelly Drug Co., Regina.	1 "	50	E. G. West & Co., Toronto.	.....	.....	26.0	5.0	131.0	77042
" 23	"	7705	Canada Drug & Book Co., Regina.	1 "	35	Nat. Drug & Chem. Co., Montreal.	.....	.....	24.0	5.0	121.0	77045
Aug. 7	"	77082	Harry J. Winton, Gowan.	1 "	50	Nat. Drug & Chem. Co., Toronto.	.....	.....	29.0	3.0	146.2	77063
" 11	"	77091	H. A. Davidson, Moose Jaw.	1 "	50	Winnickoff's Chem. Works, Montreal.	.....	.....	23.5	3.0	118.4	77091

" 23	"	77065 Canada Drug & Book Co., 1 "	35	Nat. Drug & Chem. Co., Montreal	22	3	146 2	77063
Aug. 7	"	77063 Harry J. Winton, Goran, 1 "	50	Nat. Drug & Chem. Co., Toronto	20	3	146 2	77063
" 11	"	77061 H. A. Davidson, Messrs. 1 "	50	Malinckrodt's Chem. Works, Montreal	23	3	118 4	77061

## DISTRICT OF ALBERTA A. W. H. MARKLEY, INSPECTOR.

June 14	Phosphate of Soda.	52763 Wendell MacLean, Calgary, 1 lb.	50	Malinckrodt's Chem. Works, New York.	31 0	4 0	156 2	52763	
" 14	"	52764 McGill's Drug Store, 9th & 1 Ave. and 2nd St., E., Calgary.	50	Nat. Drug & Chem. Co., Montreal	30 0	3 0	151 2	52764	
" 15	"	52765 Princess Drug Co., 8th & 1 Ave. and 2nd St., E., Calgary.	40	"	27 0	4 0	136 1	52765	
" 21	"	52766 E. M. Carpenter, Emon, 1 "	50	"	26 0	4 0	131 0	52766	
" 21	"	52767 Sission's Drug Store, Ed. 1 " monton.	35	Howard & Son, Ltd., Stratford, Eng.	20	4 0	146 2	52767	
" 21	"	52768 H. L. Hunt, Edmonton, 1 "	40	E. G. West & Co., Toronto.	26 0	4 0	131 0	52768	
" 28	"	52769 E. M. Calker, Medicine Hat.	50	Thomson Chem. Co., Baltimore, Md.	25 0	3 0	126 0	52769	
" 29	"	52710 Jackson & Co., Lethbridge 1 "	50	Lyman's, Ltd., Montreal.	Pure, free from arsenic.	24 0	3 0	121 0	52710
" 29	"	52711 The Frank Hedley Drug Co., Lethbridge.	40	Nat. Drug & Chem. Co., Ltd., Toronto.	24 0	3 0	121 0	52711	
July 9	"	52712 Harvey Drug Co., Lethbridge.	50	Nat. Drug & Chem. Co., Ltd., Montreal.	Pure . . . . .	24 0	2 0	121 0	52712

## DISTRICT OF ROCKY MOUNTAINS—THOS. PARKER, INSPECTOR.

July 13	Phosphate of Soda.	63424 E. W. Hazlewood, Trail.	1 lb.	Mallockrodt's Chem. Works, Montreal.	21 92	0 7	110 5	63424
" 24	"	63454 Rutherford Drug Co., Nel. 1 son.	50	Lyman's, Ltd., Montreal.	21 04	0 7	106 0	63454

## DISTRICT OF VANCOUVER G. G. ARMYTAKE, INSPECTOR.

June 18	Phosphate of Soda	76792 Vanc. Drug Co., 401 Main St., Vancouver.	1 lb.	The Lyman's Bros. & Co., Ltd., Toronto.	20 56	0 7	103 6	76792
" 18	"	76793 E. Shoff, 890 Main St., Vancouver.	1 "	Nat. Drug & Chem. Co. Ltd.	20 56 Nil	0 7	103 6	76793

BULLETIN No. 393—PHOSPHATE OF SODA, PLAIN—TABLE I.

Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.	Remarks and Opinions of the Chief Analyst.
				Quantity.	Manufacturer.			
Date of Collection.								
1917.	June 1.	Phosphate of Soda.	75791 C. Muddell, 37 Hastings St., E., Vancouver.	1 lb.	30 Mallinckrodt Chem. Works, St. Louis.	.....	20.00	0.5 100.8 75794
"	18	"	75796 Red Star Drug Store, 111 Cordova St., W., Vancouver.	40 "	"	.....	20.64	0.7 104.0 75795
"	26	"	75798 The Reliable Pharmacy, 1850 Commercial Drive, Vancouver.	1 "	30 Howard & Sons, Ltd., London, Eng.	.....	20.90 Nil.	104.8 75796
"	26	"	75797 Vanc. Drug Co., 176, 1 Commercial Drive, Vancouver.	30	The Lyman Bros. & Co., Ltd., Toronto.	.....	20.96	0.7 106.6 75797
"	2	"	75798 R. E. Frost, 1403 Commercial Drive, Vancouver.	50	Nat. Drug & Chem. Co., Ltd.	.....	20.16 Trace.	101.6 75798
"	26	"	75799 W. B. Hunter, 1003 Commercial Drive, Vancouver.	35 "	"	.....	20.88	0.7 106.2 75799
"	27	"	75800 Central Drug Store, 161 Cordova St., W., Vancouver.	40	Mallinckrodt Chem. Works, St. Louis.	.....	20.72 Trace.	104.4 75800
"	27	"	75801 H. M. Smith, 2206 4th Ave., W., Vancouver.	42 "	"	.....	20.80 "	104.8 75801

DISTRICT OF VANCOUVER—*Concluded.*

1917.	June 1.	Phosphate of Soda.	75791 C. Muddell, 37 Hastings St., E., Vancouver.	1 lb.	30 Mallinckrodt Chem. Works, St. Louis.	.....	20.00	0.5 100.8 75794
"	18	"	75796 Red Star Drug Store, 111 Cordova St., W., Vancouver.	40 "	"	.....	20.64	0.7 104.0 75795
"	26	"	75798 The Reliable Pharmacy, 1850 Commercial Drive, Vancouver.	1 "	30 Howard & Sons, Ltd., London, Eng.	.....	20.90 Nil.	104.8 75796
"	26	"	75797 Vanc. Drug Co., 176, 1 Commercial Drive, Vancouver.	30	The Lyman Bros. & Co., Ltd., Toronto.	.....	20.96	0.7 106.6 75797
"	2	"	75798 R. E. Frost, 1403 Commercial Drive, Vancouver.	50	Nat. Drug & Chem. Co., Ltd.	.....	20.16 Trace.	101.6 75798
"	26	"	75799 W. B. Hunter, 1003 Commercial Drive, Vancouver.	35 "	"	.....	20.88	0.7 106.2 75799
"	27	"	75800 Central Drug Store, 161 Cordova St., W., Vancouver.	40	Mallinckrodt Chem. Works, St. Louis.	.....	20.72 Trace.	104.4 75800
"	27	"	75801 H. M. Smith, 2206 4th Ave., W., Vancouver.	42 "	"	.....	20.80 "	104.8 75801

## DISTRICT OF VICTORIA - G. G. ARMYTAGE, INSPECTOR.

" 27	"	cover. 75861 H. M. Smith Ave., W., Vancouver.	2286 4th 1 " ..	42	"	"	"	"	20 80	"	104 8	75801
July 13	Phosphate of Soda	75912 F. C. Stearns, Nanaimo 1 " ..	50	Nat. Drug & Chem. Co., Ltd.	.....	.....	.....	.....	20 72	Trace.	104 4	75912
" 26	"	75913 W. Jackson, 1508 Douglas 1 " ..	40	Mallinckrodt Chem. Works, St. Louis.	.....	.....	.....	.....	21 12	Nil ..	106 1	75913
" 26	"	75914 Dean & Hiscock, Yates St., Victoria.	627 1 " ..	60	Lyman's, Ltd., Mont. real.	.....	.....	.....	25 36	Trace.	127 8	75914
" 26	"	75915 Thos. Shotbolt, 589 John- son St., Victoria	.....	Nat. Drug & Chem. Co., Ltd.	.....	.....	.....	24 08	"	121 4	75915	
" 26	"	75916 H. W. Brown & Co., Esq., 1 Quinault Road and Head St., Vancouver.	1 lb. 40	Mallinckrodt Chem. Works, St. Louis.	.....	.....	.....	24 40	Nil ..	123 0	75916	
" 26	"	75917 W. Gardner, Pan- dora and Cook Sta., Victoria.	50	"	.....	.....	.....	24 48	Trace.	123 3	75917	

LETIN No. 393—PHOSPHATE OF SODA EFFERVESCENT—TABLE II.

Nature of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis		Remarks and Opinion of the Chief Analyst.
			Quantity.	Quality.		Per cent. of $\text{Na}_2\text{PO}_4$ (by titration with $\text{H}_2\text{SO}_4$ )	Per cent. of $\text{Na}_2\text{PO}_4$ (by titration with $\text{H}_2\text{PO}_4$ )	
1915.								
July 20	Phosphate of Soda (Eff.)	7641 Nat. Drug & Chem. Co., 3 lb Halifax.	1 13 Vendors	"	"	10.70	None	52.9 7641
" 22	"	7642 C. A. Barnes, 1, Halifax	75 Vendors	"	"	6.65	"	33.5 7642
" 25	"	7643 Brown Bros., Halifax	3 "	1.00 H. K. Wampole Co., Sarnia, Ont.	"	8.65	"	43.6 7643
" 25	"	7644 G. A. Burbridge, Halifax	3 "	1.00 C. E. Frost Co., Mon- tral.	"	8.70	"	43.8 7644
" 26	"	7645 Jas. D. Walsh, Halifax	3 "	1.50 John Wyeth, Philadel- phia.	"	6.65	"	30.7 7645
Aug. 9	"	7646 G. C. McDougall, Kent- ville, N.S.	3 "	90 Nat. Drug & Chem. Co., Halifax.	"	10.00	"	50.4 7646
" 10	"	7647 H. E. Wilson, Windsor, N.S.	3 "	90 H. K. Wampole Co., Sarnia, Ont.	"	8.60	"	43.3 7647
" 8	"	5376 Care & Fraser, New Glas- gow, N.S.	12 lbs.	1.20 Parke, Davis & Co., Montreal.	"	9.10	"	43.9 5376
" 8	"	5378 E. S. MacKenzie, New Glasgow, N.S.	1 lb.	1.00 Nat. Drug & Chem. Co., Montreal.	"	10.65	"	50.6 5378
" 9	"	5379 T. H. Cochrane, New Glasgow, N.S.	3 lbs.	1.50 H. K. Wampole & Co., Perth, Ont.	"	8.85	"	44.6 5379
" 9	"	53761 A. C. Bell, New Glasgow, N.S.	3 "	John Wyeth & Bros., Philadelphia.	"	6.50	"	32.4 53761
" 9	"	53762 J. Burke Aikens, Stellar ton, N.S.	3 "	1.05 C. E. Frost & Co., Montreal.	"	8.85	"	44.6 53762
" 9	"	53763 D. MacNeil, Stellarton, N.S.	3 "	1.20 H. K. Wampole & Co., Perth, Ont.	"	9.15	"	46.1 53763
" 9	"	53764 "	"	1.20 Moyes Chem. Co., Tor- onto.	"	6.75	"	34.0 53764
" 9	"	53765 "	"	1.20 C. E. Frost, Co., Mon- treal.	"	9.10	"	45.9 53765

## DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR; W. A. PETIPAS, TEMPORARY INSPECTOR.

Date of Collection.	Nature of Sample.	Name and Address of Vendor.	Cost.	Inspector's Report. (Is not an expression of opinion.)	Results of Analysis		Remarks and Opinion of the Chief Analyst.
					Per cent. of $\text{Na}_2\text{PO}_4$ (by titration with $\text{H}_2\text{SO}_4$ )	Per cent. of $\text{Na}_2\text{PO}_4$ (by titration with $\text{H}_2\text{PO}_4$ )	
1915.							
July 20	Phosphate of Soda (Eff.)	7641 Nat. Drug & Chem. Co., 3 lb Halifax.	1 13 Vendors	"	"	10.70	None
" 22	"	7642 C. A. Barnes, 1, Halifax	75 Vendors	"	"	6.65	"
" 25	"	7643 Brown Bros., Halifax	3 "	1.00 H. K. Wampole Co., Sarnia, Ont.	"	8.65	"
" 25	"	7644 G. A. Burbridge, Halifax	3 "	1.00 C. E. Frost Co., Mon- tral.	"	8.70	"
" 26	"	7645 Jas. D. Walsh, Halifax	3 "	1.50 John Wyeth, Philadel- phia.	"	6.65	"
Aug. 9	"	7646 G. C. McDougall, Kent- ville, N.S.	3 "	90 Nat. Drug & Chem. Co., Halifax.	"	10.00	"
" 10	"	7647 H. E. Wilson, Windsor, N.S.	3 "	90 H. K. Wampole Co., Sarnia, Ont.	"	8.60	"
" 8	"	5376 Care & Fraser, New Glas- gow, N.S.	12 lbs.	1.20 Parke, Davis & Co., Montreal.	"	9.10	"
" 8	"	5378 E. S. MacKenzie, New Glasgow, N.S.	1 lb.	1.00 Nat. Drug & Chem. Co., Montreal.	"	10.65	"
" 9	"	5379 T. H. Cochrane, New Glasgow, N.S.	3 lbs.	1.50 H. K. Wampole & Co., Perth, Ont.	"	8.85	"
" 9	"	53761 A. C. Bell, New Glasgow, N.S.	3 "	John Wyeth & Bros., Philadelphia.	"	6.50	"
" 9	"	53762 J. Burke Aikens, Stellar ton, N.S.	3 "	1.05 C. E. Frost & Co., Montreal.	"	8.85	"
" 9	"	53763 D. MacNeil, Stellarton, N.S.	3 "	1.20 H. K. Wampole & Co., Perth, Ont.	"	9.15	"
" 9	"	53764 "	"	1.20 Moyes Chem. Co., Tor- onto.	"	6.75	"
" 9	"	53765 "	"	1.20 C. E. Frost, Co., Mon- treal.	"	9.10	"

PROBLEMS IN THE HISTORY OF MATHEMATICS

Aug. 23	23	Phosphate of Soda (Eff.)	63881	F. J. Hardison, Sydney, C.B.	1 06	H. K. Wanamaker & Co., Perth, Ont.	12 oz	9-0	None	4-4	63881
"	23	"	63882	P. M. F. Carter, Sydney, C.B.	1 95	W. Yetts	12 "	6 47	"	32 5	63882

DISTRICT OF NEW BRUNSWICK—JOHN C. FERGUSON, INSPECTOR.

HISTORICAL PERSPECTIVE

## BULLETIN No. 393—PHOSPHATE OF SODA, EFFERVESCENT—TABLE II.

Date of Collection.	No. of Sample.	Nature of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Manufacturer.	Furnisher.	Results of Analysis.			Remarks and Opinions of the Chief Analyst.
								Per cent. of $\text{Ca}_3(\text{PO}_4)_2$	Per cent. of $\text{Na}_2\text{HPO}_4$	Per cent. of $\text{Na}_2\text{PO}_4$	
DISTRICT OF QUEBEC CITY—Concluded.											
1917											
June 22		Phosphate of Soda, Eff.	71236 J. C. Turet, 117 St. Jean 1 lb.	1.50	W. Horner & Co., Quebec.	Mfrs.	Mfrs.	8.80	None	44.4	71228
" 22	"	"	71238 V. Girmaux, 16 St. Pierre, 1 lb.	1.20	F. W. Homer	Mfrs.	Mfrs.	8.80	"	44.4	71228
" 22	"	"	71239 A. F. Francoeur, 394 St. Jean, Quebec.	1.20	Wample.	Mfrs.	Mfrs.	9.45	"	47.6	71220
" 22	"	"	71240 M. Jolerton, 388 St. Jean, Quebec.	1.50	F. W. Homer.	"	"	9.60	"	45.4	71240
" 22	"	Compos' Phosphate Soda, Eff.	71241 J. C. Dubé, 152 St. Jean, Quebec.	1.59	"	"	"	9.10	"	42.9	71241
" 22	"	"	71243 J. Laroche, 303 St. Paul, Quebec.	1.56	John Weth & Bros.	"	"	6.70	"	33.8	71243
DISTRICT OF QUEBEC PROVINCE—N. CADIEUX, T. GENDREAU, J. H. RIOUX, TEMPORARY INSPECTORS.											
June 18		Phosphate of Soda, Eff.	5650 Eng. Fournier, St. Jerome, 3 lot. 1 lb.	1.05	Nat. Drug Co.	.....	.....	10.9	Trace.	54.9	5650
" 25	"	"	5648 J. M. Drew, M. D., La Chute, PQ.	1.00	"	.....	.....	11.2	"	56.4	5648
" 15	"	"	7355 A. E. Michon, Mont-magny, PQ.	1.50	Toronto Pharmaceutical Ltd., Toronto.	.....	.....	11.6	None.	55.4	7355
July 10	"	"	7713 Dr. Lepage, Rimouski	3 pks. 1 lb.	.....	.....	.....	10.3	Trace.	51.9	7713
" 11	"	"	7717 H. Sirivis, Trois Pistoles	3 box. 1 lb.	.....	.....	.....	11.4	None	57.4	7717

June 16 Phosphate of Soda, Eff. 7337 1 Dr. J. L. Gagnon, Mont. 3 bats. 2 25 C. E. Frost, Montreal  
July 4 " " 3022 E. 0. Cloutier, Fraser 1 lb. 1 75 Unknown. .... Unknown. ....

July 4 " " 3022 E. 0. Cloutier, Fraser 1 lb. 1 75 Unknown. .... Unknown. ....

July 4 " " 3022 E. 0. Cloutier, Fraser 1 lb. 1 75 Unknown. .... Unknown. ....

DISTRICT OF THREE RIVERS—Dr. V. P. LAVALLEE, INSPECTOR.

June 12	Phosphate of Soda, Eff.	7454 L. A. Bourr. Joliette.	12 oes.	1 25 Park Davis & Co., Walkerville.	.....	.....	10 2	1 0	51 4	7454
" 20	" " 7482	Pharmacie Normand, 1 lb.	1 50	John Wyeth & Bro., Philadelphia.	.....	.....	8 5	3 0	42 8	7482
" 20	" " 7494	J. A. Peltier, Three Rivers	1 "	35 Nat. Drug & Chem. Co., Montreal.	.....	.....	8 3	1 0	41 8	7494
" 21	" " 7492	J. E. Chevalier, Sorel	3 "	35 Lymans Ltd., Montreal.	.....	.....	8 3	1 0	41 8	7492
" 21	" " 7494	W. Weilbrenner, Sorel.	3 "	1 05 Nat. Drug & Chem. Co., Montreal.	.....	.....	10 6	2 0	53 1	7494

DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR

Aug. 13	Phosphate of Soda, Eff.	58493 A. F. Larose, 65 St. Law- rence Boul. Montreal.	3 bats.	1 50 H. K. Wambsl. Ltd.	.....	.....	9 6	2 0	48 4	58493
" 13	" " 58494	P. W. Horner, Ltd. St. 3 "	50	Vendor	.....	.....	9 4	None	50 0	58494
" 13	" " 58496	P. Quinn Wilfred, 640 Mt. Royal Ave. E., Montreal	1 25	John Wyeth & Bro.	.....	.....	9 5	2 0	47 5	58496
" 14	" " 58496	P. R. Thomas, Henry St., Montreal	3 bats.	1 50 Pemular Chem. Co.	.....	.....	9 3	None	46 9	58496
" 15	" " 58497	M. Albert, 911 St. Law-3 "	1 50 C. E. Frost & Co., rince Boul., Montreal.	.....	.....	10 5	2 0	54 5	58497	

DISTRICT OF VALLEYFIELD—J. J. COSTIGAN, ACTING INSPECTOR

June 20	Phosphate of Soda, Eff.	74331 F. C. Saunders, Bedford.	3 bats.	1 35 Frank W. Horner, Ltd., Montreal.	.....	.....	9 1	2 0	45 9	74331
" 21	" " 74332	Arm Bourgeoia, St. Johns, 3 "	1 50 Park Davis & Co.	.....	.....	.....	10 0	1 0	50 4	74332
" 21	" " 74333	P. P. Sabourin, St. Johns, 1 lb. 1 25 "	"	"	.....	.....	11 1	2 0	55 9	74333
" 26	" " 74334	B. Ostrom & Son, Alexan- dria, 3 bats.	1 20	John Wyeth & Bro.	.....	.....	8 6	1 0	49 3	74334
" 26	" " 74336	J. J. McLeister, Alexan- dria, 3 "	1 05	Lymans, Ltd.	.....	.....	10 0	Trace	50 4	74336

BULLETIN No. 393—PHOSPHATE OF SODA, EFFERVESCENT—TABLE II.

Nature of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is it an expression of opinion?).	Results of Analysis.			Remarks and Opinion of the Chief Analyst.
			Manufacturer.	Furnisher.		$\text{Na}_2\text{O}$ (Sodium phosphate, per cent. of sample).	$\text{H}_3\text{PO}_4$ (Minum Phosphate, per cent. of sample).	$\text{Na}_2\text{O}$ (Sodium phosphate, per cent. of sample).	
<b>DISTRICT OF VALLEYFIELD—Concluded.</b>									
1917.									
June 28	Phosphate of Soda, Eff.	74384 (Gen. W. Johnston), Cowansville.	3 lbs.	1.05	.....	.....	10.5	2.40	52.9
" 30	"	74385 Dr. Laroche, Valleyfield	3 "	2.25	Parke Davis & Co.,	.....	11.1	None	74336
July 11	"	74388 S. F. McTibbom, Hawkesbury	2 "	85	"	.....	9.6	"	74337
" 11	"	74389 Dr. J. A. Huot, Laval	3 "	1.05	Lymans, Ltd.,	.....	12.5	"	74338
" 16	"	74340 James Fortune, Huntingdon	3 "	1.50	Das is Lawrence Co.,	.....	10.2	3.0	63.0
					Da	.....	51.4	74340	

DISTRICT OF OTTAWA—J. A. RICKEN, INSPECTOR.

June 26	Phosphate of Soda, Eff.	77520 T. T. Battie, Bronson Street, 120 Ave., Ottawa.	3 lbs.	1.20	H. K. Wampole, Perth	.....	100 gms. contain 30 gms. Sod. Phos.	1.0	52.9	77520
" 28	"	77524 W. A. Henderson, Bank and Gladstone, Ottawa.	3 "	1.20	F. W. Horner, Ltd., M. Atwell.	.....	Each teaspoonful contains 35 gms. Sod. Phos.	4.0	48.4	77524
" 30	"	77525 C. A. McHaffie, Cornwall	3 "	1.05	John Wyeth & Bro., Philadelphia.	.....	One dram equals 30 grains of Sod. Phos.	2.0	45.4	77525

30	"	77525	C. A. McHaffie, Cornwall, 3 "	1 05	John Wyeth & Bro., Philadelphia, 100 lbs.	Phosp. One dram equals 30 grains of Sod. Phos.	9.0	2.0	45.4	77525
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July 1 <sup>st</sup>	"	77536	Wallace & Co., Penetanguishene, 100 lbs.	15 Nat.	Drug & Chem. (Co., Ottawa, 78 Toronto, Phrmaca) Co., Ltd., Toronto.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	16.0	2.0	80.6	77536
" 28	"	77562	L. A. Wilson, Smith's 3 bots., Falls.	1.05	John Wyeth & Bro., Philadelphia, 100 lbs.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	13.8	3.0	49.5	77562

#### DISTRICT OF KINGSTON—JAMES HOGAN, INSPECTOR.

June 13	Phosphate of Soda. Eff.	72558	W. E. Austin, Kingston, 3 bots.	1.05	Wampole & Co., Perth.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	9.8	2.0	49.4	72558
" 13	Estate C. S. Provo, Kings- ton.	72559	Parke Davis Co., Wal- kerille.	1.05	John Wyeth & Bro., Philadelphia.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	10.0	None	50.4	72559
" 14	"	72560	T. H. St. rgent, Kingston, 3 "	1.05	John Wyeth & Bro., Philadelphia.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	7.6	Trace.	38.3	72560
" 14	"	72561	A. P. Chown, Kingston, 3 "	90	Wampole & Co., Perth.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	10.0	1.0	50.4	72561
" 14	"	72562	Malhood Drug Co., Kings- ton.	90	" " "	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	10.1	2.0	50.9	72562
" 14	"	72563	L. J. Best, Kingston, 3 "	1.05	E. G. West, Toronto.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	7.9	3.0	39.8	72563
" 18	"	72564	F. C. Clarke, Belleville, 3 "	75	H. Wampole & Co., Perth.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	11.0	1.0	55.4	72564
" 19	"	72565	W. A. Wright, Picton, 3 "	1.05	" " "	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	9.5	4.0	52.9	72565
" 19	"	72566	E. F. Fraser, Trenton, 3 "	1.05	The Moyes Chem. Co., Toronto.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	9.7	2.0	48.9	72566
" 19	"	72567	J. Shurie, Trenton, 3 "	1.05	H. Wampole & Co., Perth.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	11.4	2.0	57.4	72567

#### DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

June 21	Phosphate of Soda. Eff.	77878	G. Tamblyn Ltd., 369 Broadview Ave., To- ronto.	75	H. K. Wampole & Co., Perth.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	9.2	3.0	46.4	77878
" 21	"	77879	T. Critenden, 601 Sher- burne St., Toronto.	1.26	The Moyes Chem. Co., Ltd., Toronto.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	9.3	2.0	46.9	77879
" 21	"	77892	R. Tuthill, 911 Bloor St. 3 "	1.26	F. W. Homer Ltd., Montreal.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	9.0	None	45.4	77892
" 22	"	77890	W. H. Robson, 296 Ger. 3 "	1.05	Parke Davis Co., Wal- kerille.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	9.0	Trace.	45.4	77890
" 22	"	77892	J. R. Hume, 1233 Dundas 3 "	1.00	Vendor, ...	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	9.4	"	46.4	77892
" 23	"	77893	W. H. Robson, 296 Ger. 3 "	1.11	C. E. Frost & Co., Montreal.	Phosp. Guaranteed to contain a proper amount of active prin- ciple.	10.4	3.0	52.4	77893

BULLETIN No. 393—PHOSPHATE OF SODA, EFFERVESCENT—TABLE II.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher, as given by the Vendor.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.		No. of Sample.	Remarks and Opinion of the Chief Analyst.
								P <sub>2</sub> O <sub>5</sub> , per cent.	Phosphoric Acid, million, parts per 100,000 H <sub>2</sub> PO <sub>4</sub> .		
DISTRICT OF TORONTO—Concluded.											
1917.											
June 23	Phosphate of Soda, Eff.	7784	The Robt. Simpson Drug Co. Ltd., Queen and Yonge Sts., Toronto.	3 bots.	75 Vendors.....			9.3	3.0	46.9	7784
" 23	"	7785	The F. E. Kan Co. Ltd., 3 Queen and Victoria, Toronto.	3 "	78 Nat. Drug & Chem. Co. Ltd., Toronto.			17.6	4.0	88.7	7785
" 26	"	7786	W. L. Wood, Gerrard and 3 Church Sts., Toronto.	3 "	1.35 H. Mulford & Co., New York.	100 per cent pure.		14.8	1.0	74.6	7786
" 26	"	7787	E. Kutherford, 13b King St. E., Toronto.	3 "	1.00 H. K. Wampole Co. Ltd., Perth.	B. P. ....		9.8	None	49.4	7787
DISTRICT OF HAMILTON—H. J. DAGER, ACTING INSPECTOR.											
July 3	Phosphate of Soda, Eff.	7794	W. H. Beattie, Guelph.	3 bots.	1.11 H. K. Wampole Co., Perth, Philadelphia.			10.0	4.0	50.4	7794
" 3	"	77945	J. D. McKee, Guelph.	3 "	1.80 John Wyeth & Bros., Peninsular Chem. Co., Detroit.			7.8	1.0	39.3	77945
" 5	"	77946	E. M. Devitt, Waterloo, O.	3 "	1.26 Peninsular Chem. Co., Detroit.			9.2	4.0	46.4	7746
" 5	"	77947	J. H. Shoemaker, Kit-chener.	3 "	1.00 Lyman's, Ltd., Montreal.	B. P. ....		10.9	2.0	54.9	77947
" 9	"	77948	Butler Bros., Brantford.	3 pkgs.	1.11 E. G. West & Co., Toronto.			9.6	3.0	48.4	77948

" 5 "	77947 J. H. Shoemaker, Kit 3	1.00	Lyman's, Ltd., Montreal	B.P. ....	10.9	2.0	54.9	77947
" 9 "	77948 Butler Bros., Brantford	1.11	E. G. West & Co., Toronto	3 phgs.	9.6	3.0	48.4	77948
" "								

" 10 "	77949 W. H. Letherstrom, Brantford	3	"	75 F. W. Horner Ltd., Montreal		9.0	2.0	45.4
" 10 "	77950 F. M. Dwyer, St. Catharines	3 bots	"	1.11 H. K. Wampole & Co., Perth		10.4	4.0	52.4
" 10 "	77951 B. M. Black, St. Catharines	3 "	1.00	E. G. West & Co., Toronto		9.8	3.0	49.4
" 12 "	77952 A. E. Dillery, 136 James St., Hamilton	3 "	1.06	Parke Davis & Co., Walkerville.		11.4	1.0	57.5
" 13 "	77957 Parke & Park, Market & 3 St., Hamilton	3 "	1.11	Vendor, Walkerville.		12.2	3.0	61.5
" "								

#### DISTRICT OF WINDSOR—JOHN TALBOT, INSPECTOR

June 12	Phosphate of Soda, Eff.	65212 W. S. Howey, Exeter, Ont.	3 bots	1.06 Nat. Drug Co.,		16.7	Trace.	84.2
" 13 "	"	65223 J. E. Hovey, Clinton, Ont.	3 "	75 H. K. Wampole, Perth		9.8	2.0	49.4
" 13 "	"	65225 W. S. R. Holmes, Clinton	3 "	1.06 H. K. Wampole, Perth		10.5	1.0	52.9
" 14 "	"	65228 A. L. Caldwell, Goderich, Ont.	3 "	75 Nat. Drug Co.,		18.7	2.0	94.2
" 15 "	"	65244 T. W. Goodyear, Woodstock, Ont.	3 "	1.11 Peninsular Chem. Co., Walkerville.		10.3	2.0	65233
" 15 "	"	65245 J. G. Karr, Woodstock, Ont.	12 ozs.	1.06 Parke Davis & Co., Walkerville.		9.3	2.0	46.9
" 15 "	"	65247 Peiper's Drug Store, 3 bots.	1.25	H. K. Wampole Co., Perth.		9.5	3.0	47.9
" 15 "	"	65249 Frank Hyde, Woodstock, Ont.	3 "	1.06 Parke Davis & Co., Walkerville.		9.5	2.0	47.9
" 18 "	"	65254 Taylor Drug Co., London	3 "	75 Nat. Drug Co.,		20.1	Trace.	101.3
" 19 "	"	65255 Cook's Red Drug Store, 12 ozs.	1.06	H. K. Wampole Co., St. Thomas.		9.7	None.	48.9
" "								

#### DISTRICT OF NORTHERN ONTARIO—THOS. E. ARMSTRONG, INSPECTOR

July 3	Phosphate of Soda, Eff.	78601 Geo. S. Tatham, New Liskeard.	3 bots.	1.06 H. K. Wampole, Perth		10.2	2.0	51.4
" 3 "	"	78613 F. C. Shaw, Cobalt	3 "	1.10 Lyman's, Ltd., Toronto		9.1	7.0	45.9
" 5 "	"	78616 Curtis Defoe Co., Haileybury	3 "	1.50 John Wyeth & Bros., Philadelphia		9.6	2.0	48.4
" 5 "	"	78617 P. H. Jory, Ltd., Haileybury.	3 "	1.11 Moyer Chem. Co., Toronto.		9.6	5.0	78617
" "								

BULLETIN No. 393—PHOSPHATE OF SODA EFFERVESCENT—TABLE II.

**DISTRICT OF MANITOBA-J. B. COSGROVE, INSPECTOR.**

1917.	June 26	Phosphate of Soda, Eff.	75369 J. H. Doods, 2091 Portage Ave., Winnipeg.	3 bats. 1 25	Martin Bole & Wynne, Winnipeg.	.....	.....	9 2	1 0	46 4	75369
	" 26	"	75370 Roberts & Sons, 1824 Portage Ave., Winnipeg.	3 "	1 05 D. W. Bradshaw, Winnipeg.	.....	.....	9 7	1 0	48 9	75370
	" 27	"	75371 McRee's Drug Store, 843 Portage Ave., Winnipeg.	3 "	1 05 C. E. Frost, Montreal.	.....	.....	10 0	2 0	50 4	75371
	" 28	"	75372 McCullough's Drug Store, 739 Ellis Ave., Winnipeg.	3 "	1 05 "	.....	.....	10 0	3 0	50 4	75372
	" 28	"	75373 J. K. Brown, Elmwood	3 "	1 20 Toronto Pharmaceutical Co., Toronto.	.....	.....	11 5	3 0	57 9	75373
	" 4	"	75374 Johnston's Drug Store, 3 Boissevain.	3 "	1 50 Parke Davis Co., Walkerville.	.....	.....	9 2	3 0	46 4	75374
	" 4	"	75375 C. F. Hassefield, Deloraine.	3 "	1 50 "	.....	.....	10 7	1 0	53 9	75375
	" 10	"	75305 F. E. Campbell, Holland.	3 "	1 25 H. K. Wampole, Perth.	.....	.....	8 5	3 0	42 8	75305
	" 23	"	75616 International Drug Co., 543 Selkirk Ave., Winnipeg.	3 "	1 50 C. E. Frost, Montreal.	.....	.....	10 5	2 0	52 9	75616
	" 26	"	75619 Store, 807 Portage Ave., Winnipeg.	3 "	1 50 Toronto Phar. Co., Toronto.	.....	.....	12 5	3 0	63 0	75619

## DISTRICT OF SASKATCHEWAN—L. H. HALL AND J. M. DANIS, INSPECTORS.

" 26	"	79519	Store's Drug Store, 807 3 " 1.50	Toronto	Phar. Co.,	.....	.....	12.5	3.0	63.0	79319
June 14	Phosphate of Soda, Eff.	77037	T. C. Ostrander, Moose Jaw.	3 bts.	1.50	Peninsular Chem. Co., Walkerville.	.....	10.6	1.0	52.9	77037
" 14	"	77038	E. B. Carruthers, Moose Jaw.	3 "	1.50	C. E. Frost, Montreal	.....	9.5	4.0	47.9	77038
" 14	"	77040	H. S. Hamilton, Moose Jaw.	3 "	1.26	Nat. Drug & Chem. Co., Montreal	.....	9.8	1.0	49.4	77040
" 18	"	77044	Carter & Wright, Assin. boia.	3 "	1.50	Toronto Pharmaco. Co., Toronto.	.....	12.2	1.0	61.5	77044
" 18	"	77046	Morrison & Nightingale, Shaanavon.	3 "	1.50	Parke Davis Co., Winnipeg.	.....	9.5	2.0	47.9	77046
" 18	"	77047	Fowle's Drug Store, Shawnavon.	3 "	1.50	C. E. Frost, Montreal	.....	9.5	4.0	47.9	77047
" 23	"	77068	Canada Drug & Book Co., Regina.	3 "	1.50	John Wyeth & Bro., Philadelphia.	.....	7.5	4.0	37.8	77066
" 13	"	77071	Herbert Drug Co., Herbert.	3 "	1.06	Martin Boie & Wynne, Winnipeg.	.....	8.0	3.0	40.3	77071
Aug. 7	"	77087	Groh's Drug Store, Strasburg.	3 "	1.06	H. K. Wampole & Co., Perth.	.....	10.5	2.0	52.9	77087
" 18	"	77090	Regina Pharmacy Ltd., Regina.	3 "	1.06	E. G. West & Co., Toronto.	.....	8.0	4.0	40.3	77090
" 18	"	78508	L. A. Brown, North Battleford.	3 "	1.50	Nat. Drug Co., Montreal.	.....	8.3	3.0	41.8	78508
" 18	"	78511	J. H. Abbott, North Battleford.	3 "	1.06	H. K. Wampole & Co., Perth.	.....	10.5	3.0	52.9	78511

## DISTRICT OF ALBERTA—A. W. MARKLEY, INSPECTOR.

June 14	Phosphate of Soda, Eff.	52713	Wendell MacLean, Calgary	3 bts.	1.20	Parke Davis & Co., Walkerville.	.....	12.0	3.0	60.5	52713
" 14	"	52714	McGill Drug Store, 9th Ave. and 2nd St. E., Calgary.	3 "	1.20	"	Contains 50 p.c. Sod. Pho.	10.0	1.0	50.4	52714
" 14	"	52715	John J. Weinfeld, Drug Co. Ltd., Calgary.	3 "	2.25	C. E. Frost & Co., Montreal.	.....	9.3	5.0	46.9	52715
" 21	"	52716	E. M. Carpenter, Edmonton.	1 lb.	50	Nat. Drug & Chem. Co., Montreal.	Contains 50 p.c. Sod. Pho.	10.0	1.0	50.4	52716
" 21	"	52717	J. F. McCullum, Edmonton.	3 bts.	1.05	H. K. Wampole & Co., Perth.	"	8.5	3.0	42.8	52717
" 21	"	52718	H. L. Hunt, Edmonton.	3 "	1.06	Parke Davis & Co., Walkerville.	"	11.0	2.0	56.4	52718
" 21	"	52719	The Owl Drug Co., n	3 "	1.50	John Wyeth & Bro., Philadelphia.	.....	7.0	1.0	35.2	52719

## BULLETIN No. 397 - PHOSPHATE OF SODA, EFFERVESCENT—TABLE II,

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher, as given by the Vendor.	Inspector's Report. (Is not an expression of opinion).	Results of Analysis.			Remarks, and Opinion of the Chief Analyst.
							Quantity.	Manufacturer.	Furnisher.	
<b>DISTRICT OF ALBERTA—Concluded.</b>										
1917.										
June 28	Phosphate of Soda, Eff.	52720	Hume Ring Co., Medicine Hat.	1 20	C. E. Frost & Co., Montreal.	.....	.....	.....	9.5	4.0 47.9 52720
" 29	"	52721	Frank Hedley Drug Co., Lethbridge.	3 "	1 80 Wm. K. Wainer & Co., Philadelphia.	.....	.....	.....	15.0	3.0 75.6 52721
July 10	"	52722	Oliver Bros., Calgary.	3 "	1 95 Nat. Drug & Chem. Co., Montreal.	.....	.....	Contains 50 p.c. Sol. Pho.	9.5	2.0 47.9 52722
<b>DISTRICT OF ROCKY MOUNTAINS—THOS. PARKER, INSPECTOR.</b>										
July 13	Phosphate of Soda, Eff.	68425	E. W. Hazlewood, Trail.	3 lbs.	1 20 Park Davis & Co., Walkerville.	.....	.....	.....	10.36	Ni. 51.2 63425
" 17	"	68444	W. H. Wainman, Ross.	3 "	1 50 Nat. Drug & Chem. Co., Montreal.	.....	.....	.....	9.80	0.7 49.4 63444
" 24	"	68455	Rutherford Drug Co., Nelson.	3 "	1 50 H. K. Wainpole & Co., Perth.	.....	.....	.....	9.88	0.6 49.9 63455
" 24	"	68456	Poole Drug Co., Nelson.	3 "	1 50 C. E. Frost & Co., Montreal.	.....	.....	.....	10.08	0.7 50.8 63456
" 24	"	68457	Poole Drug Co., Nelson.	3 "	1 65 Vendors.	.....	.....	.....	11.80	0.5 59.5 63457
" 24	"	68461	City Drug & Stationary Co., Nelson.	3 "	1 05 Toronto Pharmaceutical Co., Toronto.	.....	.....	.....	10.76	Ni. 54.2 63461

## DISTRICT OF VANCOUVER—G. G. ARMYTAGE, INSPECTOR.

June 18	Phosphate of Soda (Eff.)	75822 Standard Drug Store, 3 bts. 1 56 H. K. Wampole & Co., Perth.	75822	9 32 Trace.	46 9	75822	
" 19	"	75823 The Owl Drug Co., Main 3 " 1 20 Parke, Davis & Co., Walkerville.	"	8 66 Nil.	43 1	75723	
" 20	"	75824 Knowlton's, Ltd., 16 Ha-3 " 1 50 " " "	"	10 88 Trace.	54 8	75824	
" 20	"	75825 Hastings St. E., Vancouver. 3 " 1 20 Unknown " " "	"	9 20 "	46 4	75825	
" 20	"	75826 Woodward's Dept. Stores, Ltd., Hastings and Abbott, Vancouver.	"	"	"	"	
" 20	"	75826 Manhattan Pharmacy, 3 " 1 20 Nat. Drug & Chem. Co., Vancouver.	"	10 32 "	52 0	75826	
" 20	"	75827 Law, the Druggist, Davie 3 " 1 05 C. E. Frost & Co., Montreal.	"	9 76 0 5	49 4	75827	
" 21	"	75828 David Spencer, Ltd., 515 3 " 1 20 Parke, Davis & Co., Walkerville.	"	8 48 Nil.	42 7	75828	
" 23	"	75829 H. Ryall, 701 Columbia St., New Westminster.	1 50 " "	"	8 76 Trace.	44 2	75829
" 26	"	75830 Capitol Pharmacy, Davie 3 " 2 25 H. K. Wampole & Co., Perth.	"	8 92 0 5	45 0	75830	
" 27	"	75831 Pacific Drug Stores, Ltd., 3 " 1 50 John Wyeth & Bro., Philadelphia.	"	8 32 Nil.	41 9	75831	

## DISTRICT OF VICTORIA—G. G. ARMYTAGE, ACTING INSPECTOR.

July 13	Phosphate of Soda (Eff.)	75902 J. B. Hodgins, Nanaimo 3 bts. 1 00 H. K. Wampole & Co., Perth.	75902	9 32 0 5	46 9	75902	
" 13	"	75903 A. C. Van Houton, Nana-imo.	1 00 "	"	8 40 Trace.	42 3	75903
" 25	"	75904 David Spencer, Ltd., Vic- toria.	1 05 D. Howard's Family Remedy Co.	"	9 92 Nil.	50 0	75904
" 25	"	75905 D. E. Campbell, Fort and Douglas, Victoria.	1 50 Parke, Davis & Co., Walkerville.	"	8 76 "	44 2	75905
" 25	"	75906 F. J. Williams, Fort and Government, Victoria.	1 50 " " "	"	8 80 "	44 4	75906
" 26	"	75907 W. Jackson & Co., 1633 Douglas St., Victoria.	1 05 H. K. Wampole & Co., Perth.	"	8 48 0 7	42 7	75907
" 26	"	75908 Dean & Hiecock, 627 Yates St., Victoria.	1 00 Parke, Davis & Co., Walkerville.	"	9 08 Nil.	45 8	75908

*CORRECTION.*

Bulletin No. 382 page 6, sample Liniment of Camphor No. 76526, under Remarks and Opinion of the Chief Analyst should appear the following: "Genuine as to camphor content, but made with olive oil which contains cotton seed oil."